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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,093	10/31/2003	Takeshirou Tanabe	F-8014	2674

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,093	TANABE ET AL.	
	Examin r	Art Unit	
	Nguyen N Hanh	2834	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1,3-6,11,12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe (JP 10136589) in view of Onishi et al.

Regarding claim 1, Tanabe discloses a motor having a stator (10 in Fig. 4) composed by a straight core, the straight core comprising a stack of laminas (2) each having a plurality of tees (3) projecting from one long side of a belt-shaped back yoke and a V-shaped cut formed between every two adjoining tees along the back yoke and on its side from which the tees project, the straight core having an insulating layer formed by pre-molding from an insulating resin on its portions excluding at least the inner periphery of each tee, the straight core further having a winding (8) wound about each tee having the insulating layer formed thereon, bending the straight core at the cuts shape, and joining the opposite ends of the back yokes to each other by welding or adhesion. Tanabe fails to show the motor having the motor frame molded by covering the stator with a molded resin.

However, Onishi et al. discloses a motor having the motor frame molded by covering the stator (4 in Fig. 1) with a molded resin for the purpose of forming a molded motor (Col. 3, lines 65-67).

Since Tanabe and Onishi et al. are in the same field of endeavor, the purpose disclosed by Onishi et al. would have been recognized in the pertinent art of Tanabe.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Tanabe by covering the stator with a molded resin as taught by Onishi for the purpose of forming a molded motor.

Regarding claim 3, Onishi et al. also disclose the molded motor wherein the motor frame is molded about the longitudinal axis of the stator by covering the entire outline of the stator excluding its inside diametrical portion with the molding resin (Fig. 1).

Regarding claim 4, Onishi et al. also disclose the molded motor wherein the molding resin is an insulating resin (Col. 2, line 40-45), or premix.

Regarding claim 5, Onishi et al. also disclose the molded motor wherein a wiring circuit board (211 in Fig. 5) is embedded in the motor frame.

Regarding claim 6, Onishi et al. also disclose the molded motor wherein a wiring circuit board is embedded in the motor frame and the straight core has a plurality of supports, as well as insulating layer, pre-molded on one side thereof for mounting the wiring circuit board (Fig. 6).

Regarding claim 11, Onishi et al. also disclose the molded motor wherein it is a brushless DC motor (Col. 12, lines 9-11).

Regarding claim 12, Tanabe also discloses the motor wherein the number of the tees is 12.

Regarding claim 14, Onishi et al. also disclose the molded motor wherein it is a motor for an air cleaner. conditioner, pump, washing machine, or air (intended use, patentable weight not given).

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe (JP 10136589) in view of Onishi et al. and further in view of Kikuchi (JP 10271715).

Regarding claim 2, Tanabe and Onishi et al. show all limitations of the claimed invention except showing the molded motor wherein the joined ends of each back yoke are shaped like a crank.

However, Kikuchi discloses a motor wherein the joined ends of each back yoke are shaped like a crank for the purpose of preventing the stator coil from burning by a laser beam (abstract).

Since Tanabe, Onishi et al. and Kikuchi are in the same field of endeavor, the purpose disclosed by Kikuchi would have been recognized in the pertinent art of Tanabe and Onishi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Tanabe and Onishi et al. by making the joined ends of each back yoke with a shape like a crank as taught by Kikuchi for the purpose of preventing the stator coil from burning by a laser beam.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe (JP 10136589) in view of Onishi et al. and further in view of Takano.

Regarding claim 7, Tanabe and Onishi et al. show all limitations of the claimed invention except showing the molded motor wherein positioning projections protrude from the supports for positioning the wiring circuit board held therebetween.

However, Takano discloses a motor wherein positioning projections (63) protrude from the insulating winding support (Fig. 2 and Fig. 16)for positioning the wiring circuit board held therebetween for the purpose of improving winding efficiency (abstract).

Since Tanabe, Onishi et al. and Takano are in the same field of endeavor, the purpose disclosed by Takano would have been recognized in the pertinent art of Tanabe and Onishi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Tanabe and Onishi et al. by forming positioning projections protrude from the supports for positioning the wiring circuit board held therebetween as taught by Takano for the purpose of improving winding efficiency.

4. Claims 8-10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe (JP 10136589) in view of Onishi et al. and further in view of Suzuki et al.

Regarding claim 8, Tanabe and Onishi et al. show all limitations of the claimed invention except showing the molded motor wherein a plurality of binding pins projecting from the covering for wiring the winding.

However, Suzuki et al. disclose a motor wherein a plurality of binding pins projecting from the covering for wiring the winding for the purpose of connecting the stator coils to the printed circuit board (Col. 4, lines 21-24).

Since Tanabe, Onishi et al. and Suki et al. are in the same field of endeavor, the purpose disclosed by Takano would have been recognized in the pertinent art of Tanabe and Onishi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Tanabe and Onishi et al. by forming a plurality of binding pins projecting from the covering for wiring the winding as taught by Takano for the purpose of connecting the stator coils to the printed circuit board.

Regarding claims 9 and 10, Suzuki et al. show three binding pins and a neutral binding pin located on the outer periphery of the tees (Fig. 6).

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art at the time the invention was made to locate the binding pins at the location as recited in claims 9 and 10, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japike, 86 USPQ 70.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanabe (JP 10136589) in view of Onishi et al. and further in view of Morrill.

Regarding claim 13, Tanabe and Onishi et al. show all limitations of the claimed invention except showing the molded motor wherein wherein the brushless DC motor is a three-phase one, the number of the tees is 12, and a U-phase winding is wound about the first, fourth, seventh and tenth tees from the tee at either end of the straight core, a V-phase winding about the second, fifth, eighth and eleventh tees and a W-phase winding about the third, sixth, ninth and twelfth tees.

However, Morrill discloses a motor wherein wherein the brushless DC motor is a three-phase one, the number of the tees is 12, and a U-phase winding is wound about the first, fourth, seventh and tenth tees from the tee at either end of the straight core, a V-phase winding about the second, fifth, eighth and eleventh tees and a W-phase winding about the third, sixth, ninth and twelfth tees (Fig. 6) for the purpose of forming a three phase stator.

Since Tanabe, Onishi et al. and Morrill are in the same field of endeavor, the purpose disclosed by Kikuchi would have been recognized in the pertinent art of Tanabe and Onishi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Tanabe and Onishi et al. by making the stator wherein the number of the tees is 12, and a U-phase winding is wound about the first, fourth, seventh and tenth tees from the tee at either end of the straight core, a V-phase winding about the second, fifth, eighth and eleventh tees and a W-phase winding about the third, sixth, ninth and twelfth tees as taught by Morill for the purpose of forming a three phase stator.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Darren Schuberge, can be reached on (571) 272-2044. The fax phone

numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

June 25, 2004

BURTON S. MULLINS
PRIMARY EXAMINER